RAISECOM

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ARP Management Commands

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Chapter 1   ARP Management Commands

1.1 arp

[Function]

Add new table item of ARP mapping table, no format command can cancel operation.

[Command Format]

arp *ip-address mac-address*

[Parameter]

ip-address: IP address, in format of dotted decimal numberal, like A.B.C.D;

mac-address: hardware address, in format of HHHH.HHHH.HHHH.

[Command Modes]

Global configuration mode, Privileged EXEC

[Executing Command Instruction]

ARP table is maintained by dynamic ARP protocol. ARP searches the resolving result of IP address that maps to MAC address. It is automatical. When it is required to add static ARP entries, manually operation of ARP table is required. The IP address of static added ARP table should belong to IP network segment of switch layer-3.

Use **no arp** *ip-address* to delete ARP entries both dynamic and static.

[Explanation of command execution echo]

set successfully!

Adding static ARP entry successfully.

set unsuccessfully

Adding static ARP entry unsuccessfully.

[Example]

Add a static ARP entry. Map IP address 10.0.0.1 to MAC address 0050.8d4b.fd1e:

Raisecom(config)#**arp** *10.0.0.1 0050.8d4b.fd1e*

Delete ARP entry which IP address is 10.0.0.1 in ARP table:

Raisecom(config)# **no arp** *10.0.0.1*

[Related commands]

Commands	Description
clear arp	Clear ARP table
show arp	Show ARP table

1.2 arp aging-time

[Function]

Setting the aging time of ARP dynamic entries, the dynamic ARP entries will be removed from the table according to ARP aging time. The **no** form of this command is used to recovery the default aging time of dynamic ARP.

[Command Format]

arp aging-time *secs*

[Parameter]

secs: integer 0 or 30-2147483.

[Default]

ARP aging time is 1200 secs.

[Command Modes]

Global configuration mode Privileged EXEC

[Executing Command Instruction]

Use this command to set dynamic ARP entries aging time, the maximum time of resolution result, if the existing time of any entry exceeds this time limitation, it will be removed automatically. If the time limitation is set to zero, the dynamic ARP entries will not be removed.

[Explanation of command execution echo]

Set successfully.

Set unsuccessfully

[Example]

Setting the aging time of ARP table to 1500 secs:

Raisecom(config)# **arp aging-time** *1500*

Recover the aging time of ARP table to 1200 secs:

Raisecom(config)# **no arp aging-time**

[Related commands]

Commands	Description
clear arp	Cleare ARP table
show arp	Show ARP table

1.3 arp mode

[Function]

Set ARP dynamic learning mode.

[Command Format]

arp mode {*learn-all* | *learn-reply-only*}

[Parameter]

learn-all: learn all when receive ARP request and replay message;

learn-reply-only: learn the reply message of ARP only.

[Default]

learn the reply message of ARP only (learn-reply-only)

[Command Modes]

Privileged EXEC, privileged user

[Executing Command Instruction]

Use this command to set ARP dynamic learning mode to avoid ARP attack. Learn both request message and reply message of ARP in learn-all mode; learn the reply message of ARP only in learn-reply-only mode, for the request message, it replies ARP reply message but don't learn ARP.

[Explanation of command execution echo]

Set successfully.

[Example]

Setting ARP dynamic learning mode to be learn-all:

Raisecom(config)# **arp mode** *learn-all*

Setting ARP dynamic learning mode to be learn-reply-only:

Raisecom(config)# **arp mode** *learn-reply-only*

[Related commands]

Commands	Description
show arp	Show ARP entries.

1.4 clear arp

[Function]

Clear all entries of ARP table.

[Command Format]

clear arp [**schedule-list** *list-no*]

[Parameter]

schedule-list: set start time, finish time and periodic time interval of schedule task;

list-no: schedule list range: <0-99>.

[Command Modes]

Global configuration mode and Privileged user

[Executing Command Instruction]

If it is required to delete ARP table, use **clear arp.**

[Explanation of command execution echo]

set successfully!

Clear ARP entries successfully.

set unsuccessfully

Clear ARP entries unsuccessfully.

[Example]

Clear ARP table:

Raisecom(config)#**clear arp**

[Related commands]

Commands	Description
arp	Add a static MAC address entries.
show arp	Show all entries of ARP table.

1.5 show arp

[Function]

Show the item of ARP mapping table.

[Command Format]

show arp

[Command Modes]

Privileged EXEC; privileged user

[Executing Command Instruction]

Use **show arp** to search all the item in arp address list, every item includes IP address, MAC address and the type information.

[Explanation of command execution echo]

Display the information as below when **show arp** command executing successfully:

arp table aging-time is 6000 seconds(default:1200s)

ARP mode: Learn reply only：

IP Address	*MAC Address*	*Type*
10.0.0.5	*0050.8d4b.fd1e*	*static*
10.0.0.6	*0050.0a3c.ac2e*	*dynamic*
10.0.0.7	*0050.1c4e.15a7*	*dynamic*

Total: 3

Static: 1

Dynamic: 2

[Example]

Show ARP table:

Raisecom#**show arp**

[Related commands]

Commands	Description
arp	Add a static MAC address table.
arp mode {*learn-all* / *learn-reply-only***}**	Set ARP dynamic learning mode.
clear arp	Clear up all the items in ARP address mapping table.

北京瑞斯康达科技发展有限公司
RAISECOM TECHNOLOGY CO.,LTD.